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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,186	12/18/2001	Kazuhiro Kurihara	SON-0521US	8027
21254	7590	03/07/2005	EXAMINER	
MCGINN & GIBB, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817			FILE, ERIN M	
			ART UNIT	PAPER NUMBER
			2634	

DATE MAILED: 03/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/020,186

Applicant(s)

KAZUHIRO KURIHARA

Examiner

Erin M. File

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 December 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7,11,15,19,23,28 and 30 is/are allowed.
- 6) ☒ Claim(s) 1 and 27 is/are rejected.
- 7) ☒ Claim(s) 2-6,8-10,12-14,16-18,20-22,24-26 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/12/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

***Specification***

1. The disclosure is objected to because of the following informalities: in the recitation, "...using the HPSK (Hyper Phase Shift Keying)". However, The acronym HPSK is generally used as an acronym for Hybrid Phase Shift Keying in spread spectrum communications.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1 is rejected under 35 U.S.C. 102(e) as anticipated by Lipka et al.

**Claim 1**, Lipka disclose a radio transmitter for generating and outputting up to N channels processed in parallel to form a wideband output signal composed of in-

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phase and quadrature signal components ([0036], lines 1-6). Lipka further discloses spreading means for each channel  $C_{ch}$  (fig. 2, 33) and multiplication means for multiplying by a Gain factor (34). In-phase and quadrature components are digitally modulated by multiplication by a complex scrambling code (fig. 2, 36). The output of the digital modulation is input to a clipping unit (fig. 2, 37), which is shown in more detail in figure 3. Within the clipping unit exists a estimation filter (fig. 3, 56, 57) that uses a formula for the weighting factors,  $w_{mm}$ , that calculate the estimated weights of the signal from the chip time interval, which is the inverse of the chip rate ([0049], equation). The control unit (fig. 3, 58) also generates a power adaptation control signal  $S_p$  that is input to a power adaptation unit (fig. 3, 59). In the power adaptation unit the input samples are re-scaled by means of the power adaptation signals  $S_p$ . The amplitudes of the samples are enlarged to hold within that time interval the mean power constant. In this embodiment scaling factor  $f$  and power adaptation factor  $S_p$  each control a multiply operation of the in-phase and quadrature samples of the complex transmission signal ([0051]). The output of the clipping unit (fig. 2, 37) is filtered and converted to analog, then input to a quadrature modulator (fig. 2, 40). The quadrature modulator outputs an intermediate frequency, which is filtered (41), unconverted (42), and a power amplified (43), before it is emitted through an antenna (44) as a radio wave.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lipka et al. in further view of the admitted prior art, Fig. 1 of the instant application.

**Claim 27**, inherits the limitations of Claim 1. Lipka fails to disclose the first channel data is data channel data of the transmission data, and the second channel data is control channel data of the transmission data. However, in the admitted prior art the applicant discloses a baseband circuit (fig. 1, 110) for generating and outputting two types of transmission data, namely data channel data DPDCH (Dedicated Physical Data Channel) and control channel data DPCCH (Dedicated Physical Control Channel). The output of the disclosed baseband circuit is two channels, which as in Lipka's disclosure, are spread by spreading codes, multiplied by weight factors, digitally modulated, and then quadrature modulated. The use separate control channels and data channels is

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a common in mobile communications systems. These separate channels allow more efficient communications because the control channel that negotiates the data transfer is separated from the voice data, causing more efficient data transfer rates. Therefore it would be obvious to one skilled in the art at the time of invention to use the teaching of separate data and control channels in the admitted prior art in Lipka's invention.

6. Claims 2-6, 8-10, 12-14, 16-18, 20-22, 24-26, and 29 are objected to as dependent on rejected claim(s) but would be allowable if rewritten in independent form.

7. Claims 7, 11, 15, 19, 23, 28, and 30 are allowable in view of the known prior art.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erin M. File whose telephone number is (571)272-6040. The examiner can normally be reached on M-F 9:30-6:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (571)272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Erin M. File

2/23/2005

EMF

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